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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,867	03/25/2004	Yoshiyuki Ikezaki	503038.108005	6661
29540	7590	04/27/2006	EXAMINER	
PITNEY HARDIN LLP			VO, ANH T N	
7 TIMES SQUARE			ART UNIT	
NEW YORK, NY 10036-7311			PAPER NUMBER	
			2861	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,867

Applicant(s)

IKEZAKI, YOSHIYUKI

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

NON-FINAL REJECTION

Continued Examination

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/13/06 has been entered.

The rejections over Shinada et al. (US Pat. 6,643,738) is withdrawn in view of the amendments to the claims.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 USC 102 (e) as being anticipated by in view of Childs et al (US 6,955,425).

Childs et al. disclose in Figures 1, 3 and 6 an ink cartridge for use in an ink jet printing apparatus comprising:

- an inkjet head (52) that is driven to eject ink to a recording medium (not shown);

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- a carriage (82) mounting the inkjet head (52), the carriage being reciprocally movable in a second direction which is perpendicular to the first direction;
- a movable ink tank (40) that is mounted on the carriage (82, Figure 3), the movable tank having an ink storing chamber, the ink tank having an ink introducing channel at a valve (36A) and an ink discharging opening (62), the ink stored in the ink storing chamber being discharged through the ink discharging opening 62 to the inkjet head (52);

at least one wall (122A, Figure 6) provided in the ink chamber, the at least one wall extending vertically to divide the ink chamber, in the horizontal direction, into a plurality of rooms (44, 48), the plurality of rooms communicating with each other at upper portion (56) which are above an upper end of the at least one wall (122A), a first room (48), which is one of the plurality of rooms (48, 44), being provided with the ink introducing channel, and a second room (44) being provided with the ink discharge opening (62); and

- wherein a horizontal cross-sectional area of at least one second room (44), which one of the plurality of rooms (44, 48) other than the first room (48), within a predetermined vertical range from the upper end of the at least one wall is equal to or smaller than that of the first room (48), see Figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-20 are rejected under 35 USC 103 (a) as being unpatentable over Childs et al (US 6,955,425) in view of Tsukada (JP Pat. 20011328279) and further in view of Erickson (US Pat. 6,164,766).

Childs et al. disclose the basic features of the claimed invention were stated above but do not disclose a horizontal cross-sectional area of the at least one second room below the predetermined vertical range is greater than the horizontal cross-sectional area thereof within the predetermined vertical range; wherein horizontal cross-sectional areas of the plurality of the rooms other than the first room below the predetermined vertical range are greater than the horizontal cross-sectional areas thereof within the predetermined vertical range; wherein at least one room of the plurality of the rooms other than the first room has a vertical range; in the vicinity of the upper end of the at least one wall, in which the horizontal cross-sectional area is fixed; wherein the at least one second room has a vertical range, below the predetermined vertical range, in which the horizontal cross-sectional area increases toward a lower portion thereof; and a stationary ink tank which does not move when the carriage moves; and a tube member that connects the stationary ink tank and the movable ink tank to allow the ink to be supplied from the stationary ink tank to the movable ink tank.

Nevertheless, Tsukada et al. disclose in Figures 1-4 and 8 a liquid container comprising:

- an ink cartridge (194) having a partition (212c) that divides an ink chamber into at least one first room (213a) and at least one second room (213b);
- a horizontal cross-sectional area of the at least one second room (213b) below the predetermined vertical range is greater than the horizontal cross-sectional area thereof within the predetermined vertical range;
- wherein horizontal cross-sectional areas of the plurality of the rooms (213a, 213b) other than the first room (213a) below the predetermined vertical range are greater than the horizontal cross-sectional areas thereof within the predetermined vertical range;
- wherein at least one room of the plurality of the rooms other than the first room has a vertical range, in the vicinity of the upper end of the at least one wall, in which the horizontal cross-sectional area is fixed; and
- wherein the at least one second room (213b) has a vertical range, below the predetermined vertical range, in which the horizontal cross-sectional area increases toward a lower portion thereof.

Furthermore, Erickson discloses in Figures 1-3 an ink refill system comprising a stationary ink tank (14) which does not move when the carriage (4) moves; and a tube member (60) that connects the stationary ink tank (14) and the movable ink tank (12) to allow the ink to be supplied from the stationary ink tank (14) to the movable ink tank (12).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Tsukada et al. and Erickson in the ink jet printing apparatus of Child et al for the purpose of supplying ink to the ink cartridge from the stationary ink tank with a negative pressure condition.

Response to Applicant's Arguments


Applicant argues that the communication between the plurality of rooms of Shina does not occur at the upper position when in use. The argument is persuasive without traverse. However, this limitation is suggested in the Childs et al as stated above.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (571) 272-2262.

The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M..

The fax number of this Group 2800 is (571) 273-8300.



ANH T.N. VO
PRIMARY EXAMINER

April 26, 2006